

Reply To Examiner's Remarks

Claims 1-3, 5-9, 11-15 and 17-18, as amended, are presented for consideration.

The Examiner rejects claims 1, 7 and 13 under 35 U.S.C. 102(e) as anticipated in view of the disclosures in U.S. Patent No. 6,278,887, issued to Son et al. The Examiner rejects claims 4, 10 and 16 under 35 U.S.C. 103(a) as obvious in view of the combined disclosures in Son et al patent and U.S. Patent No. 5,570,421, issued to Morishima.

The Son et al patent discloses a radiotelephone system with a power conservation on backlight, where turning on and off the backlight is controlled by timers or a light sensor with a combination of timers.

The Morishima patent discloses a drive-frequency control system for a LED where the brightness of the luminance of the LED is controlled by two or more drive-frequency generators. The luminance of the LED is based on the amount of ambient light detected by an illumination detector, such as a photo sensor, as described at column 1, lines 36-39 and column 3, lines 20-21.

Method claim 1, as amended, of the subject patent application recites a method for conserving power in operation of a radiotelephone. The method comprises the processes of:

- determining an ambient light intensity, referred to as an "ALI", at a radiotelephone;

- comparing the ALI value with a reference value ALI(ref);

- when the ALI value is at least as large as the ALI(ref) value, causing a backlight associated with the radiotelephone to enter a sleep mode;

- when the ALI value is less than the ALI(ref) value:

determining if at least one function in a selected group of radiotelephone functions is presently in use;

when no function from the selected group is presently in use, causing the backlight to enter the sleep mode;

when at least one function from the selected group is presently in use, turning on the backlight to a selected power level and beginning to accumulate time under a selected timeout interval;

determining if at least one function from the selected group is still presently in use;

when at least one function from the selected group is still presently in use, resetting the beginning of the timeout interval;

when no function from the selected group is presently in use, continuing to accumulate time under the timeout interval, and determining if the timeout interval is completed;

when the timeout interval is completed, causing the backlight to enter the sleep mode; and

providing an adjustment to a user-specified value of at least one of the reference value ALI(ref) and the selected power level provided for the backlight.

Amended claim 1 includes the limitations of former claim 4 and recites that a reference value, ALI(ref), and/or a backlight's power level is adjustable to a value that the user specifies or selects.

The Morishima patent discloses a system where the brightness of the illumination of a LED is controlled by setting one or more predetermined and preconfigured reference (i.e. threshold) values, which in turn generates two or more preconfigured drive-frequency generators. However, the Morishima patent does not

teach or suggest provision of providing a single reference value to control turning on and turning off the LED or the backlight, as recited in amended claim 1. The reference values (i.e. thresholds) defined in the Morishima patent are used to select two or more predetermined different levels of the brightness of the illumination instead. Further, the Morishima patent is not concerned with the LED control system where it is the user that controls, by adjusting the reference value, at what ambient light the backlight should desire to turn on and turn off and also is not concerned with the system that is tailored individually to each user based on user's eye sensitivity, visual acuity and/or other personal preferences. Furthermore, the Morishima patent discloses the system where controlling the brightness of the illumination of the LED requires one or more reference values that are predetermined and that are not user pre-programmable, such that, once the system provides one or more reference values to generate corresponding two or more preconfigured drive-frequency generators to control the brightness of the illumination, the user is not able to adjust the brightness of the illumination to a level that the user desires. Amended claim 1 discloses the backlight control system where it is the user who is able to adjust the brightness of the illumination with the user's selected power level for the backlight.

The combined disclosures in the Son et al and Morishima patents teach a backlight control system in a radiotelephone where controlling turn-on and -off, and the brightness, of the backlight is provided by using one or more timers and a light sensor and comparing the detected sensor output with its predetermined threshold value(s). However, the combined disclosures do not teach or suggest providing an adjustment to the user-specified value of at least one of the reference value and the selected power level for the backlight, as recited in amended claim 1.

For the reasons set forth above, the Applicant believes that amended claim 1 is not obvious in view of the combined disclosures in Son et al and Morishima patents and is allowable over the combined disclosures.

In a similar manner, amended claim 7 includes the limitations of former claim 10 and is a systems claim corresponding to the method claims 1 and is believed to be allowable if the corresponding method claim is allowable.

In a similar manner, amended claim 13 includes the limitations of former claim 16 and recites that a reference value, ALI(ref), and/or a backlight's power level is adjustable to a value that the user specifies or selects. As stated before, the combined disclosures in the Son et al and Morishima patents teach a backlight control system in a radiotelephone where controlling turn-on and -off, and the brightness, of the backlight is provided by using one or more timers and a light sensor and comparing the detected sensor output with its predetermined reference value(s) and do not teach or suggest the backlight system where the user controls at what ambient light the backlight should turn on and also to what level of brightness. Thus, amended claim 1 would not have been obvious in view of the combined disclosures in Son et al and Morishima patents and is allowable over the combined disclosures.

Amended claims 2-3, 8-9 and 14-15 depend upon claims 1, 7 and 13, respectively, as before. Claims 5-6, 11-12 and 17-18, originally dependent upon claims 4, 10 and 16, respectively, are amended to depend upon 1, 7 and 13, respectively, as amended herein.

The Applicant requests that the Examiner pass the application, including claims 1-3, 5-9, 11-15 and 17-18, as amended, to issue as a US patent.



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Docket JS-4-07

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Jae H. Shim".

Jae H. Shim

Inventor

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